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July 28, 2010

VIA ELECTRONIC FILING

Jocelyn Boyd, Chief Clerk/Administrator
Public Service Commission of South Carolina
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Duke Energy Carolinas, LLC Upgrade of Transmission Lines from Shiloh Switching Station to Pisgah Tie
Docket No. 2010-253-E

Dear Jocelyn:

Enclosed for filing please find Duke Energy Carolinas, LLC's Supplemental Information for the letter filed by the Company on July 26, 2010, in the above docket. The information includes the Evaluation of Annual Firm Transmission Reservation Request 72148188 and Duke Energy's Transmission Facility Study. By copy of this letter, we are providing this information to the Office of Regulatory Staff. Should you need any additional information, please contact us.

Very truly yours,

ROBINSON, MCFADDEN & MOORE, P.C.

Bonnie D. Shealy

/bds
Enclosure

cc/enc: Shannon Hudson, ORS Staff Attorney (via email & U.S. Mail)
Joseph Melchers, PSC General Counsel (via email & U.S. Mail)
Timika Shafeek-Horton, Associate General Counsel (via email)

BEFORE
THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA

DOCKET NO. 2010-253-E

In re:	**)**
	)
Duke Energy Carolinas, LLC	**)**
Upgrade of Transmission Lines from	**)**
Shiloh Switching Station	**)**
To Pisgah Tie	**)**

DUKE ENERGY CAROLINAS, LLC'S

SUPPLEMENTAL INFORMATION

FOR LETTER

FILED JULY 26, 2010

Evaluation of Annual Firm Transmission Reservation Request 72148188

And

Duke Energy Transmission Facility Study

EVALUATION OF ANNUAL FIRM TRANSMISSION RESERVATION REQUEST 72148188

Reservation of 300 MW (72148188 for annual firm 1/1/10 to 1/1/35 CPLE to CPLW) is requested. The customer desires evaluation of Conditional Firm Service but not Planning Redispatch Service.

Scope

FERC has ruled that annual firm reservation requests have "rollover rights". In addition, the initial acceptance of the reservation must identify any future upgrades caused by the transmission customer's request and when the upgrade will be required. Duke's position is any upgrades that will occur within 10 years of the initial request will be identified in the Transmission Service Agreement (TSA). The TSA will require future re-evaluation of the reservation to determine its continued acceptability and responsibility for construction of any necessary upgrades.

Uncertainties

Transmission system model accuracy decreases for future years. Significant changes can alter anticipated transfer capability results. Some examples are:

- Future cases contain a limited number of transmission reservations, potentially understating system loop flows and base flow on lines
- Significant topography changes can occur that impact flow (e.g. new generation siting/retirement, tie line changes, transmission projects)
- Market changes that impact loop flows (e.g. PJM/MISO LMP)
- Change in sources for network resource designations

The FERC ruling requires transmission providers to use the best available information and engineering judgment in order to make a determination of the timing of future upgrades. Duke's procedure attempts to mitigate uncertainties by using the most currently updated transmission system model & linear study files. The model is updated using the forecast of future system load and generation sources.

Procedure

Utilize the most current LTSG/MMWG/NTSG/OASIS models available for the summer period furthest out in time. The case should be reviewed for necessary modifications to interchange and topology. Base case counterflows should be reviewed for removal. Eliminating these transfers will aid in creating a worst case

scenario for study simulations. Confirmed or higher queued long term firm transmission service requests (TSR) that are not modeled and would contribute to loading in the direction of the reservation should be included. Include the requested reservation that is under study in the model.

Using MUST, run linears involving Duke imports and exports on the case at the typical LTSG/NTSG test levels. Use the appropriate LTSG/NTSG subsystem files for the import areas and the SGA function (including off-line units) for the export areas. Evaluate the linear results for transfers in the direction of the requested TSR, noting elements that limit transfer capability.

To determine if future upgrades will be required to allow rollover rights, the study model must be scaled and dispatched to future Duke load levels (available from internal case models) and re-evaluated. This will create initial line loading that can be expected on the Duke system in the future. Modify interchange and scale external control area generation/load, if necessary, to account for significant changes in network resource designations. Using the base case, scale load to the future year level and re-dispatch with that year's .ecd file. Again, run linears on the new case to determine when any limits to transfer would occur for limiting elements on the Duke system. Determine deficit energy margin and VACAR reserve sharing requirements to ensure transfer capability margin remains to serve native load and the requested reservation. Deficit energy margin should be assumed for any fictitious or non-contracted generation that needs to be dispatched to meet load levels in the future year case. The deficit energy margin to be maintained on each interface will be defined as the 1.5 times the net energy deficit divided by the six interfaces Duke has with neighboring control areas, up to the limit of their contract path rating.

Use the FCITC results to calculate the First Contingency Total Transfer Capability (FCTTC) by adding the base transfer that was used in the case to the FCITC. TTC of the interface is the lesser of contract path or FCTTC. ATC is then derived by subtracting from TTC all the confirmed firm reservations on that interface. Sufficient ATC must be available to satisfy reserve sharing and deficit energy needs. Therefore:

FCTTC = FCITC + base transfers modeled
TTC = lesser of {Contract Path or FCTTC}
ATC = TTC - confirmed firm reservations - reserve sharing requirements - deficit energy margin

For additional analyses, other cases may need to be created to determine the year when a limiting element occurs that would require upgrade. To account for additional uncertainty, a transfer capability margin of 100 MW will be maintained. During the first 10 years of the TSR, if the results accounting for VACAR reserve sharing requirements and deficit energy indicate available transfer capability is

100 MW or less; the TSR is the cause of upgrades required to remove the limiting element.

Ensure that the identified limits are not being directly caused or masked by fictitious/non-contracted generation or other specific model revisions not related to the TSR. If so, re-evaluate the method used to update the model to eliminate this issue.

***Evaluation of TSR* 72148188**

Reservation of 300 MW (annual firm 1/1/10 to 1/1/35 CPLE to CPLW is requested. The LTSG 2009W, 2010S, 2010W, 2012S, 2012W, 2014S, 2014W, 2015S, 2015W and 2019S cases were evaluated.

The LTSG models developed in June 2008 were used as the base cases. Duke and Progress Energy Carolinas (PEC) have signed a definitive agreement for construction of a new tie line between Duke's Pleasant Garden Tie and PEC's Asheboro station. The new line is expected to be in service June 2011 and was included in the appropriate models.

A higher queued confirmed request had to be added to update the LTSG cases:

MW	SOURCE	SINK	TSR
100	SOCO	CPLW	71624042

A summer LTSG case transfer of 150 MW CPLW to CPLE that has no associated reservation and would produce counterflow was removed from the applicable summer cases.

The base models were tested for transfer levels up to 800 MW. Because the request is for a wheel through, generation shifts were tested with Duke as the importing and exporting control area to test each interface. MUST was run using appropriate .sub, .mon & .con files to determine FCITC limits. The TSR studied is a wheel through, and deficit energy margin is not included in the analysis.

72148188

Transfer capability on the CPLE to Duke interface was not expected to be a limiting factor based on previous transfer analysis and North Carolina Transmission Planning Collaborative work. Several year's cases were tested with the 300 MW transfer in place and no limits were identified on the CPLE to Duke interface. The cases tested all had high FCITC values, usually greater than the 2000 MW test level, therefore no additional analysis was performed.

The area of concern is the Duke to CPLW interface which has a history of lower available transfer capability. The new request for a relatively large block of energy (300 MW) to an area with only 800 – 900 MW of load would likely have a significant impact on transfer capability.

For 2009W:

The lowest limit in 2009W is 250 MW to CPLW after considering minor ancillary equipment upgrades on the Pisgah-Shiloh 230 kV line. Contract path (CP) for Duke to CPLW is 1119 MW. Base transfer is 686 MW from Duke to CPLW.

FCTTC = FCITC + base transfer = 250 + 686 = 936
TTC = lesser of {CP or FCTTC} = 936
ATC = TTC – Firm Reservations – TRM = 936 – 686 – 200 = 50

Because CPLW is an isolated load pocket, allowing a lower level of uncertainty 50 MW versus the normal 100 MW is acceptable. Therefore the reservation can be accepted for 2009W.

For 2010S:

The lowest limit in 2010S is 150 MW to CPLW. Base transfer for Duke to CPLW is 550 MW in this case. Contract path for Duke to CPLW is 1119 MW.

FCTTC = FCITC + base transfer = 150 + 550 = 700
TTC = lesser of {CP or FCTTC} = 700
ATC = TTC – Firm Reservations – TRM = 700 – 550 – 200 = -50

The resulting negative ATC is caused by a limit on the Pisgah-Shiloh 230 kV line for the loss of the parallel line. An upgrade of the line to raise the FCTTC is not available in this timeframe. Conditional firm service must be evaluated.

For 2010W:

The lowest limit in 2010W is 250 MW to CPLW after considering minor ancillary equipment upgrades on the Pisgah-Shiloh 230 kV line. Base transfer is 686 MW from Duke to CPLW. (Includes TSR 71624042 for 100 MW SOCO to CPLW.)

FCTTC = FCITC + base transfer = 250 + 686 = 936
TTC = lesser of {CP or FCTTC} = 936
ATC = TTC – Firm Reservations – TRM = 936 – 686 – 200 = 50

Because CPLW is an isolated load pocket, allowing a lower level of uncertainty 50 MW versus the normal 100 MW is acceptable. Therefore the reservation can be accepted for 2010W.

For 2012S:

The lowest limit in 2012S is 200 MW to CPLW. Base transfer for Duke to CPLW is 450 MW in this case. Contract path for Duke to CPLW is 1119 MW.

FCTTC = FCITC + base transfer = 200 + 450 = 650
TTC = lesser of {CP or FCTTC} = 650
ATC = TTC – Firm Reservations – TRM = 650 – 450 – 200 = 0

The resulting 0 MW ATC is caused by a limit on the Pisgah-Shiloh 230 kV line for the loss of the parallel line. An upgrade of the line to raise the FCTTC may not be available in this timeframe. Conditional firm service must be evaluated.

For 2012W:

The lowest limit in 2012W is 300 MW to CPLW after considering minor ancillary equipment upgrades on the Pisgah-Shiloh 230 kV line. Base transfer is 586 MW from Duke to CPLW.

FCTTC = FCITC + base transfer = 300 + 586 = 886
TTC = lesser of {CP or FCTTC} = 886
ATC = TTC – Firm Reservations – TRM = 886 – 586 – 200 = 100

Because CPLW is an isolated load pocket, allowing a lower level of uncertainty 50 MW versus the normal 100 MW is acceptable. Therefore the reservation can be accepted for 2012W.

For 2014S:

The lowest limit in 2014S is 150 MW to CPLW. Base transfer for Duke to CPLW is 450 MW in this case. Contract path for Duke to CPLW is 1119 MW.

FCTTC = FCITC + base transfer = 150 + 450 = 600
TTC = lesser of {CP or FCTTC} = 600
ATC = TTC – Firm Reservations – TRM = 600 – 450 – 200 = -50

The resulting negative ATC is caused by a limit on the Pisgah-Shiloh 230 kV line for the loss of the parallel line. An upgrade of the line to raise the FCTTC should be available in this timeframe.

For 2014W:

The lowest limit in 2014W is 300 MW to CPLW after considering minor ancillary equipment upgrades on the Pisgah-Shiloh 230 kV line. Base transfer is 586 MW from Duke to CPLW.

FCTTC = FCITC + base transfer = 300 + 586 = 886
TTC = lesser of {CP or FCTTC} = 886
ATC = TTC – Firm Reservations – TRM = 886 – 586 – 200 = 100

Because CPLW is an isolated load pocket, allowing a lower level of uncertainty 50 MW versus the normal 100 MW is acceptable. Therefore the reservation can be accepted for 2014W.

For 2015S:

The lowest limit in 2015S is 150 MW to CPLW. Base transfer for Duke to CPLW is 450 MW in this case. Contract path for Duke to CPLW is 1119 MW.

FCTTC = FCITC + base transfer = 150 + 450 = 600
TTC = lesser of {CP or FCTTC} = 600
ATC = TTC – Firm Reservations – TRM = 600 – 450 – 200 = -50

The resulting negative ATC is caused by a limit on the Pisgah-Shiloh 230 kV line for the loss of the parallel line. An upgrade of the line to raise the FCTTC should be available in this timeframe.

For 2015W:

The lowest limit in 2015W is 250 MW to CPLW after considering minor ancillary equipment upgrades on the Pisgah-Shiloh 230 kV line. Base transfer is 586 MW from Duke to CPLW.

FCTTC = FCITC + base transfer = 250 + 586 = 836
TTC = lesser of {CP or FCTTC} = 836
ATC = TTC – Firm Reservations – TRM = 836 – 586 – 200 = 50

Because CPLW is an isolated load pocket, allowing a lower level of uncertainty 50 MW versus the normal 100 MW is acceptable. Therefore the reservation can be accepted for 2015W.

For 2019S:

The lowest limit in 2019S is 50 MW to CPLW. Base transfer for Duke to CPLW is 450 MW in this case. Contract path for Duke to CPLW is 1119 MW.

FCTTC = FCITC + base transfer = 50 + 450 = 500
TTC = lesser of {CP or FCTTC} = 500
ATC = TTC – Firm Reservations – TRM = 500 – 450 – 200 = -150

The resulting negative ATC is caused by a limit on the Pisgah-Shiloh 230 kV line for the loss of the parallel line. An upgrade of the line to raise the FCTTC should be available in this timeframe.

EVALUATION OF CONDITIONAL FIRM SERVICE

The results indicate that upgrade of the Caesar 230 kV Line (Pisgah Tie – Shiloh Tie) by 2010 summer is required – bundling of the line to increase capacity. Until completion of the upgrade, only conditional firm service would be available. An ancillary equipment upgrade must be done on the Caesar Line prior to the upgrade work to allow full use of winter rating capability. Upgrade of the CT's and traps at Shiloh Tie & Pisgah Tie is required to raise the facility rating to the conductor rating. Also, upgrade of the CT's on the 230 kV side of the Pisgah 230/100 kV banks is required before Caesar Line bundling is complete to avoid the banks becoming a future limit to transfer.

Conditional Firm – Conditions

With both circuits of the Pisgah-Shiloh Line in service while summer ratings are in effect

If the Duke Real Time Contingency Analysis (RTCA) shows the loss of either circuit of the Pisgah-Shiloh Line will cause the remaining circuit to exceed its emergency rating of 506.7 MVA. This condition would normally occur when loading of either circuit is ~255 MW.

Basis – Summer study results consistently show an ~65% LODF for the Pisgah-Shiloh Lines when both are in service. When Pisgah-Shiloh Line loading reaches

~255 MW, the outage of one circuit will result in 65% of the flow moving to the circuit remaining in service or ~420 MW loading.

255 + (.65)*255 = 420 MW

The 420 MW loading is the transfer limit for which the 200 MW TRM requirement can still be met, with one circuit of the Pisgah-Shiloh Line out of service, without exceeding the existing conductor summer rating of 506.7 MVA.

***

With one circuit of the Pisgah-Shiloh Line out of service for upgrade while summer ratings are in effect

If the Duke Real Time Contingency Analysis (RTCA) shows the loss of another circuit will cause the in service Pisgah-Shiloh Line to exceed its emergency rating of 506.7 MVA. Studies show that this condition would normally occur when loading of the in-service line is ~315 MW and the Cane River-Nagel Line (AEP-CPLW tie line) were to trip.

Basis – Summer study results consistently show an ~50% LODF impact from the Cane River-Nagel Line on the Pisgah-Shiloh Lines when only one circuit is in service. Under summer conditions, the Cane River-Nagel Line carries ~55% of the MW flow of the in service Pisgah-Shiloh Line. When Pisgah-Shiloh Line loading reaches ~315 MW, the outage of the Cane River-Nagel line will result in ~50% of the flow moving to the Pisgah-Shiloh circuit that is in service.

315 + (.55*315)*.50 = 401 MW

The 401 MW loading is the limit for which the 200 MW TRM requirement can be met with one circuit of the Pisgah-Shiloh Line and the Cane River-Nagel out of service without exceeding the existing conductor summer rating of 506.7 MVA.

Conditional Firm – Hours

With summer ratings in effect and both circuits of the Pisgah-Shiloh Line in service, CFS can be allowed for conditions where CPLW load is less than 860 MW with import reservations of 450 MW scheduled (based on the results of analysis of the 2012S + all TSR's case accounting for 450 MW of transfer and 200 MW of TRM). Allowing for 15% margin of error in load provides a limit of 730 MW of CPLW load. Summer load was greater than 730 MW:

Year	Hours
2006	111
2007	160
2008 (thru 8/7)	147

Therefore, conservatively assuming similar conditions and some load growth, 200 hours of conditional firm hours/year are accumulated.

The LTSG2010F case with only one circuit of the Pisgah-Shiloh Line in service was reviewed. For 2010, a total of 550 MW of transmission service into CPLW would be available if the 300 MW request is accepted. Conditions involving a 550 MW net load limit for CPLW (load+losses-generation) create a situation where the in service Pisgah-Shiloh circuit will be loaded to 90% of its emergency rating by a Cane River-Nagel Line contingency. Allowing for the ~10% margin in line loading sets 550 MW of CPLW net load as the limit for these conditions. Fall and spring load was greater than 550 MW:

Year	Fall (Hours)	Spring (Hours)
2006	88	-
2007	112	816
2008 (thru 8/7)	-	614

An additional estimated 1000 hours/year of conditional firm is assumed to be accumulated. **The net conditional firm hours/year is 1200 hours.**

SUMMARY

Fictitious generation at Lee, Buck and Cliffside are dispatched in the models in order to meet load/interchange, but did not significantly affect the limiting facilities. The dispatch of fictitious/non-contracted generation does not impact the existence of limiting elements.

There are presently no planned system upgrades or queued generation interconnections on the Duke system that would have a direct, negative impact on transfer capability to CPLW from the Duke control area.

The requested reservations can not be accepted 1/1/2010 through 1/1/2035 without upgrade of the Caesar 230 kV line. Conditional firm service based on conditions or hours can be granted.

TRANSMISSION FACILITY STUDY

FOR PROGRESS ENERGY REQUEST OF

ANNUAL FIRM TRANSMISSION RESERVATION

CPLE TO CPLW 300MW: 1/1/10 TO 1/1/35

TSR 72148188

Prepared by: R .Hurst / G. Price / S. McClure
12/3/2008

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Transmission Facility Study Results

INTRODUCTION

Progress Energy ("Customer") has requested annual firm transmission reservation in the electric transmission control area owned and operated by Duke Energy Corporation ("Duke"). The Customer's requested firm transmission reservation calls for 300MW to start 1/1/10 and end 1/1/35.

At the request of the Customer, Midwest Independent Transmission System Operator ("Midwest ISO") performed and delivered to the Customer a System Impact Study. The System Impact Study revealed the requested reservations can not be accepted 1/1/10 through 1/1/35 without upgrade of the Caesar 230 KV line. Conditional firm service based on conditions or hours can be granted. A Facilities Study Agreement was entered into by and between Midwest ISO, Duke Energy Carolinas and Progress Energy Carolinas. This Facility Study quantifies the work scopes, completion dates and costs associated with the required Network Modifications to address the identified constraints.

Network Modifications are all of those system changes necessary to address constraining network elements as identified by thermal, fault current, and stability studies. Specific scopes, completion dates and costs for Duke's required Network Modifications are addressed in this document.

BASELINE ASSUMPTIONS

Duke's Facilities are based on application of industry standard equipment. As such the total capability may accommodate energy flows greater than the stated requests. In the event the Customer decides to request an additional increment of capacity, a new System Impact Study will be required to evaluate the impacts. Any constraints that may result will be identified as part of the new study request.

The following assumptions have been used to establish the project scopes, completion dates and cost estimates for the identified facilities.

1. Facility Study is premised on Duke providing turnkey design and installation of all Transmission Owner's Facilities associated with the Customer's requests.

2. Any required outages necessary to support construction of Duke's Network Modifications must occur during a spring or fall timeframe. If an outage of sufficient duration cannot be obtained to support any of the required construction activities, temporary facilities may have to be constructed to maintain integrity of the grid. No provisions have been made for temporary work in the estimates provided herein.

3. All estimates prepared for this Facility Study are considered to be good faith estimates represented in present day dollars as of the date of the Study. The estimates are further premised on being able to perform work during normal business hours with minimum overtime or weekend work. The Customer will be responsible for all actual costs.

4. The Customer's financial responsibilities for Duke's regulated facilities will be determined in accordance with the Duke's Tariff in effect at the time of design and construction.

5. All schedules provided herein are provided as a guideline for planning purposes. Detailed work planning will not begin on any facilities until the appropriate agreement has been executed, appropriate monies tendered, and credit securities provided.

6. Upon receipt of the Customer's notice to proceed, Duke will develop appropriate work plans and initiate certain design and procurement activities. The Customer will be responsible for all costs incurred by Duke associated with those efforts. Should the Customer reconsider its decision to proceed or determine it must suspend the project for some period of time will not relieve the Customer of financial responsibility for costs or obligations incurred by Duke in support of the Customer's request for annual firm transmission reservation.

REQUIRED NETWORK MODIFICATIONS

The work scopes, completion dates and cost estimates are provided as general information and reflect what is anticipated to be done. FERC process requires all official description of scopes, completion dates and cost estimates to be provided via the Facility Study development process. This document cannot be utilized to circumvent the FERC process in any way. As such these scopes, completion dates and cost estimates should be viewed as guides to facilitate project planning. Scopes, completion dates and cost estimates may be expanded or modified as the Facility Study is developed to support this project. All cost estimates include appropriate overheads and loadings. They also include project funding (AFUDC) allocations.

The impact study indicated that conditional service may be granted based on system conditions, hours and minor terminal upgrades. Maximum transfer capability is contingent on upgrading terminal equipment at Shiloh and Pisgah Tie substations (reference B & C Table 1) prior to rebuild of the Caesar 230kV line. Due to CT's in the breakers being one of the limiting factors, the breakers must be replaced at Shiloh Switching Station. Breaker replacement is a major component of the total terminal upgrade, therefore the terminals will be upgraded to meet the future capacity of the bundled Caesar line.

I. COST ESTIMATES AND COMPLETION DATES FOR NETWORK MODIFICATIONS

Note: Estimated Completion Dates based on Notice to Proceed by 1/1/09

Table 1

Ref.#	Facility	Total Estimated Cost	Estimated Completion
A	Rebuild Caesar B&W 230KV Line	$ 57,268,293	06/01/14
B	Station Upgrades At Shiloh Switching	$ 1,026,063	06/01/10
C	Station Upgrades At Pisgah Tie	$ 707,942	06/01/10
	TOTAL	**$59,002,298**	

II. WORK SCOPE DESCRIPTION FOR NETWORK MODIFICATIONS

A. Rebuild Caesar B&W 230KV Line From Shiloh Switching To Pisgah Tie

Work on the Caesar B&W 230KV line consists of rebuilding approximately 22 miles on existing right-of-way between Shiloh Switching and Pisgah Tie. This work is required to increase the thermal and electrical capacity of the line. The line work will involve the following activities:

1. Replacement of approximately 40 existing 2F series strain towers with 40 new 2N series strain towers and reinforce approximately 96 existing 2F series tangent towers

2. Installation of new 954 ACSR 54/7 phase conductors with the existing 954 ACSR 54/7 phase conductors to form a 2 bundle configuration on both circuits

3. Replacement of existing ½" overhead ground wire with new ½" overhead ground wire

4. Re-establish access roads into tower sites and installation of erosion control devices

B. Station Upgrades at Shiloh Switching Station

Due to the rebuild of the 230kv Caesar line, upgrades must be made to meet additional capacity at Shiloh Switching Station.
The 1200 amp tap must be upgraded to 3000 amp and associated conductors.
PCB's 11, 12, 21, and 22 will be replaced with 3000 amp breakers.
Remove the line traps and tuners on the Caesar Black and Caesar White lines.
Replace the old GE Capacitor Voltage Transformer's on both lines with new units.
Install a DDJB Termination Cabinet at each breaker to terminate control cables.
Replace the four existing relay and carrier panels with two new SEL relay panels. (1 panel per line)

C. Station Upgrades at Pisgah Tie

Due to the rebuild of the 230kv Caesar lines, upgrades must be made to meet additional capacity at Pisgah Tie Substation. All upgrades outlined in the scope are respective to the Caesar black and white lines.
The 1250kcm aluminum overhead bus line will be upgraded to 2-1250kcm aluminum from the line terminal to both (red, yellow) main buses.
Upgrade the overhead 230kv gangs on the top decks from 1200 amp to switch capable of meeting the capacity of the bundled Caesar line conductor.
Upgrade the 230kv gangs on the lower deck from 1200 amp to switch capable of meeting the capacity of the bundled Caesar line conductor. .
Upgrade the breaker drops to 2-1250kcm.
Remove the line traps, coupling capacitors, and tuners on both lines.
Replace the four existing relay and carrier panels with two new SEL relay panels. (1 panel per line)